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ABSTRACT

In June 1989, the Utah State Office of Education contracted with the Research and Evaluation Methodology Program at Utah State University to conduct a statewide evaluation of Utah's Productivity Projects Studies Program. This executive summary of the results of the evaluation contains: (1) a description of the program; (2) an overview of the evaluation methods used; and (3) a summary of the major findings and recommendations relating to 12 evaluation questions. Between 1981 and 1990, Utah appropriated nearly eight million dollars to study educational productivity in public schools in Utah. Thirty-four school districts received direct funding for productivity studies. This summary focuses on 12 evaluative questions. Findings/recommendations are summarized regarding the following: (1) a new definition of productivity as improving the effectiveness and efficiency of educational programs and increasing the equality of access to educational opportunities; (2) recognition that previous evaluation of productivity projects has been inadequate; (3) acknowledgment that program management and assistance must be strengthened; (4) necessity of compliance monitoring; (5) need for technical assistance and training; (6) need for additional staffing; and (7) a recognition of the beneficial, although limited, impact of productivity programs to date. (SLD)

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STATEWIDE EVALUATION

of

UTAH'S PRODUCTIVITY PROJECT

STUDIES PROGRAM

Submitted to:

UTAH STATE OFFICE OF EDUCATION

August 6, 1990

By:

RESEARCH AND EVALUATION METHODOLOGY PROGRAM

Department of Psychology, College of Education
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EXECUTIVE SUMMARY

to the Final Report

TM015990

A Personal Perspective

It is not customary in evaluation reports -- filled as they usually are with facts and findings -- to reflect publicly on the motives of those who commissioned those studies. And perhaps that is just as well, for evaluators generally agree, at least in private, on a disquieting fact. Namely, that most of the evaluations we conduct are initiated by program administrators solely because someone else with regulatory, financial, or executive control has thrust evaluation upon them.

This fact is as true of state education agencies as elsewhere, especially when the programs to be evaluated are highly visible statewide programs, high-stakes programs where much could be gained -- or lost -- through careful scrutiny of how well the programs are living up to their expectations. Having evaluated statewide education programs in nearly half of our nation's states, I would conclude that it is most uncommon to see administrators and staff in public education agencies invite honest evaluation of their programs in the absence of some external mandate for such an evaluation.

Which makes Utah, and its education agency, uncommon. The vision and recognition of the need for evaluation that prompted Kolene Granger, Ann Mayberry and their colleagues to initiate this evaluation is commendable, as is the openness and integrity of the Utah State Office of Education staff, all of whom have enabled this study to be carried out without any effort to bias the outcomes. Speaking for all the evaluators who have assisted with this study, we applaud the courage of those who commissioned it, not because they were forced to (for they were under no mandate), but because of their convictions that public trust requires the professional integrity of basing program decisions on solid information about program effectiveness. In particular, we express our appreciation to:

- Gary Carlston, Kolene Granger, Larry Horyna, Dave Nelson, and Devon Sanderson for the counsel, advice, and direction they supplied as members of the Advisory Committee for steering this study.

- Ann Mayberry and Claudia Seeley, who served as project officers for this study and as ex officio members of the Advisory Committee as well as stepping in to assist with tasks better conducted by someone with their positions or contacts.

- To the many Utah school administrators and central office staff, teachers, students, and parents who provided much of the data reported herein for their time and valuable information they gave.

I trust that the information presented in this report answers the questions that led to initiation of this study.

Blaine R. Worthen
Project Director

EXECUTIVE SUMMARY

In June, 1989, the Utah State Office of Education (USOE) contracted with the Utah State University (USU) Research and Evaluation Methodology (REM) Program to conduct a statewide evaluation of Utah's Productivity Projects Studies Program. This executive summary of the results of this evaluation contains:

- a brief description of the program that was evaluated
- a brief overview of the evaluation methods used
- a summary of the major findings and recommendations relating to 12 important evaluation questions that were addressed in this study.

Parenthetical references are inserted to guide the reader who wishes additional detail to the appropriate report sections. Those interested in a more complete report may wish to skip this summary and go directly to Section 1, where the full report of this study begins.

Conversely, those who are interested only in highlights of the results of this study (or those who can never resist turning to the end of the novel to "see how the story ends" can skip to page 29, "Overall Summary and Conclusions."

DESCRIPTION OF UTAH'S PRODUCTIVITY PROJECTS STUDIES PROGRAM

Between 1981 and 1990, Utah's legislature has appropriated nearly $8 million for studying educational productivity in Utah's public schools. Funding levels rose from an initial $200,000 in 1981 to $1,400,000 in 1986, then declined gradually to its current funding level of $980,815, as some promising practices that developed as part of this program were split off into other funding categories of their own (e.g., the year-round school projects and the technology projects). Of Utah's 40 school districts, 34 have received direct funding for productivity studies.

Two major forces led to the initiation of this program in 1981: (1) the financial austerity that confronted Utah's lawmakers in the early 1980s; and (2) the legislature's premise that Utah's schools could and should be more efficient. From the inception of this funding authorization, it was clear that what the legislature meant by educational productivity was educational cost savings, which legislators believed were possible while simultaneously increasing the quality of educational programs. This "more for less" legislative direction led to a State Board guideline which, from 1981 through 1988, defined productivity as follows:

> "Productivity" means improving the quality of educational programs while serving more students with the same or less money or serving the same number of students with less money. (Rule R300-405-1.A: 1988)

Although neither state-level nor school-district educators shared legislators' optimism that already underfunded schools could simultaneously belt-tighten and produce still better outcomes, they made a genuine good-faith effort, requesting funds to study a variety of ways to increase educational productivity. Productivity projects have included year-round school programs, extended-day programs, concurrent enrollment projects, early reading projects, computer-assisted writing labs, distance learning projects, laser disc applications, mastery learning projects, and paraprofessional/volunteer support projects.

Despite these sincere efforts, by 1988 even the most optimistic of Utah's educators began to chaff under the legislature's implicit criticism of their schools' efficiency. Although facing some of the nation's highest pupil-teacher ratios, and confronting budget shortfalls and minimal salary increments year after year, Utah teachers -- and their administrators -- began to balk at apparent legislative urging to do even more with less. Creative educators began to see ways to use productivity funding to do many worthwhile things they urgently needed to do, but which could not meet fully the requirements of the productivity definition without stretching the system -- or the truth -- beyond its capacity.

In this context of severe underfunding and urgency facing Utah's schools, any straying from the strict definition of educational productivity appears understandable, and hopefully forgivable. In fact, given the severe resource shortages confronting Utah's school districts, it is commendable that so many attempted to implement the spirit, if not the strict letter, of the productivity definition. Many educators felt (as interview data we will report later will show) that a 20% gain in learning that could be produced with a 5% increase in cost should be viewed by legislators and the general public as a much more productive system, and thus deserving of financial support even under the Utah definition.

Apparently, by 1987, concerns of educators about the feasibility of satisfying the strictly interpreted legislative direction had led to dialogue between Utah State Board of Education members and USOE officials that resulted in subsequent softening of the definition by the Utah State Board of Education:

> "Productivity," as defined by the Utah State Board of Education means "teaching an increased number of students with a limited number of dollars while maintaining or increasing the quality of the educational programs." (Utah Educational Reform Programs: 1988-89, p. 14).

This same document also carried the following recommendations of the USOE staff concerning future definitions of educational productivity in Utah:

> It has been recommended that in the future "Productivity" be defined as "improving the quality of educational programs or reducing costs per student while maintaining or increasing the quality of educational programs." The emphasis of this reform program will be on enhancing the quality of instruction in Utah's public schools. Some areas of focus will be
>
> - Productivity through restructuring schools and classrooms to allow for flexibility and innovation in the instructional process
> - Productivity through programs and processes that accelerate the learning rate of students
> - Productivity through school-home networks
> - Productivity through partnerships with the community and business

- Productivity through innovative staffing, i.e., paraprofessionals and volunteers
- Productivity through serving more effectively and efficiently the individual students' needs for learning
- Productivity through participative school management
- Productivity through effective and efficient monitoring of student progress (*Utah Educational Reform Programs: 1988-89*, p. 14-15, italics added).

Thus, during the 1988-89 school year, the definition adopted by the State Board of Education and USOE staff was technically incongruent with the early legislative direction for productivity. It was in this context that the present evaluation study was launched.

During this study, key USOE officials and key legislators on educational subcommittees revisited the issue of definition during early 1990. The movement toward a modified definition for productivity already underway may have been given added impetus by some preliminary information that the present evaluation study provided to the USOE. Whatever prompted them, however, these discussions were fruitful in providing a much broader and more flexible definition of productivity as follows:

> "Productivity" means improving the effectiveness and efficiency of educational programs. (Rule R300-405-1.C: 1990).

Thus, much of the present evaluation will focus on projects launched and completed under a more limiting definition of productivity than that which is now in place. Nonetheless, data presented hereafter should prove very useful to those who (1) continue to administer and monitor this program under the new definition, and (2) continue to refine the definition so as to optimize both the use of Utah's resources and the quality of Utah's schools. (A more complete description of this program, its history and how its definition has evolved, is included in Section 2.)

OVERVIEW OF THE EVALUATION STUDY

The purpose of this evaluation study, as outlined by the Utah State Office of Education (USOE) officials and the Utah State Board of Education, was to examine the Utah productivity program to determine precisely what it has accomplished during its eight-year history, in each of the areas stipulated by the legislature as an expectation under this funding program. Specifically, the following 12 questions were proposed to focus and guide this evaluation study:

1. What information exists in current USOE productivity project files that will be useful in answering subsequent questions posed in this study?

2. What overall educational benefit has the Utah Productivity Projects Studies Program had on each of the following areas: student achievement, participant attitudes, efficiency of instructional service, quality of instruction, quantity of instruction, and equity in access to education?

3. Overall, how has the Utah Productivity Projects Studies Program influenced cost of education in Utah?

4. Overall, what is the relationship between costs and benefits of the Utah Productivity Projects Studies Program?

5. To what extent has information about projects in the Utah Productivity Projects Studies Program been disseminated to other Utah school districts? What factors are associated with project dissemination?

6. To what extent have projects in the Utah Productivity Projects Studies Program been continued in school districts after termination of state funding? What factors are associated with the continuation or discontinuation of such projects?

7. To what extent have the productivity projects achieved the objectives stated in their proposals?

8. What is the quality, comprehensiveness, and usefulness of the existing (project) internal and external evaluation studies of productivity projects?

9. What factors have contributed to the success of productivity projects that have produced the greatest overall educational benefit and cost/benefit?

10. What factors have contributed to the success of productivity projects that have produced the least overall educational benefit and cost/benefit?

11. What management plan and procedures could be used by USOE officials to optimize the benefits and impact of the Utah Productivity Projects Studies Program?

12. What evaluation strategies and guidelines could be used by USOE to assure that future evaluations will provide valid, reliable, and useful information concerning (1) individual productivity projects to project directors, school administrators, and USOE officials, and (2) information about the program as a whole to the USOE and to Utah's legislators?

Constraints Under Which This Evaluation Was Conducted

It is difficult to do a retrospective evaluation of an eight-year-old, multi-faceted statewide program that existed in multiple projects scattered throughout the state's school districts. It is nearly akin to attempting to judge the quality of the Utah Pioneer Day parades during the last decade. One could attend the final parade and make observations and evaluative judgments, but any judgments about the preceding years would need to come from earlier evaluations of those parades (if such evaluations had been recorded and retained), by asking for recollections of those who had attended the prior parades, and perhaps by sifting through any archival residue and traces that marked the parade's passing.

This analogy may be a bit overdrawn to make the point, but it is not entirely dissimilar to constraints facing our evaluation team in trying to respond to the USOE's desire to see what eight years of productivity projects funding had added up to. Specifically, this evaluation was necessarily limited by the following factors:

- ***Resource availability.*** Resources available for this evaluation permitted collection of critical data from only a sample of ongoing productivity projects.

- ***Dependence on secondary data.*** The present evaluation depended, of necessity, on prior evaluations required of most productivity projects; where those evaluations were absent or inadequate, this evaluation was hindered.

- ***Dependence on retrospective recall.*** The erosion of memory by time and intervening events raises questions about the complete accuracy of prior participants' reports about projects long discontinued.

- ***Dependence on perceptions of project costs and benefits.*** Few public school personnel are trained to do cost-benefit analyses and, therefore, almost no cost benefit data exists beyond that of perceptions of costs and benefits as reported by school practitioners and policy makers.

Given these constraints, we believe that this statewide evaluation of Utah's Productivity Studies Program should not be considered a summative, final evaluation at this juncture. It may seem strange to suggest that a summative evaluation is premature after eight years of program operation, but we believe such is the case here. Every summative evaluation requires data that will support both reliable and valid judgments concerning the effectiveness of that which is evaluated. Although prior evaluations provided useful insights into the program, and although additional reliable and valid evaluation data were collected in our study, collectively they do not comprise, in our opinion, an adequate data base to warrant summative judgments. Rather, we view the findings of this evaluation as formative and suggestive and trust that the management and evaluation guidelines we provide herein will serve as an adequate source of future data on which necessary summative judgments could depend.

Evaluation Components

To answer the 12 evaluative questions listed above, the following seven general evaluation components were proposed.

1. ***Advisory panel guidance.*** Obtain guidance from a statewide advisory panel to refine the evaluation plan and instruments.

2. ***Organization of existing Utah Productivity Projects Studies Program information.*** Organize all productivity project documents in the USOE Project Assistance Services files.

3. ***Analysis of previous productivity project reports and evaluations.*** Categorize and code all information in project mid-year reports, internal evaluations and external evaluations, including assessment of the validity of such information to extract all the meaningful information from prior data bases.

4. ***Telephone interviews.*** Interview all Utah school district superintendents and a sample of 25 productivity project directors to ascertain their perceptions of project and program success.

5. ***Questionnaire surveys.*** Survey stratified random samples of principals, teachers, students and parents in a sample of 25 districts which have had productivity projects to determine their feelings about the success of those projects and of the program as a whole.

6. ***On-site visits.*** Conduct evaluation team visits to six projects selected by USOE officials as having high potential for impacting on educational productivity in Utah to validate USOE perceptions and to identify factors that are associated with successful projects.

7. ***Develop evaluation and management system protocols.*** Draw on findings from the preceding components and on the evaluators' prior experience and expertise to recommend ongoing management and evaluation procedures that can assist the Utah's Productivity Projects Studies Program in operating smoothly and effectively so as to have maximum impact on the quality of education in Utah.

(For a complete description of the evaluation methods and activities used to conduct this study, see Section 4 of this report).

FINDINGS AND RECOMMENDATIONS

The 12 major evaluation questions which guided this study will be used as organizers in this section of the executive summary. Major findings and recommendations relating in each question are summarized briefly here. A full treatment of the information available to address each question is in the body of the report. Brevity and clarity are our goals in presenting the information below.

1. WHAT INFORMATION EXISTS IN CURRENT USOE PRODUCTIVITY PROJECT FILES THAT WILL BE USEFUL IN ANSWERING SUBSEQUENT QUESTIONS POSED IN THIS STUDY?

Major Findings

The official USOE project files were the primary source of information available to the state and its various agencies until this evaluation was conducted. The incomplete and frequently inadequate data from these files would make it difficult, were they the only data source, to present a compelling picture of the impact of the productivity projects on the quality of Utah's education. Nearly half of the required internal and external

evaluation reports and documentation of project changes were originally missing from project files, although some of these documents were later located in the USOE. These reports are essential to understanding what was done in each project, what occurred in students' lives because of it, and what costs were incurred.

When evaluation reports were available and information about outcomes was included, it was not as convincing as it could have been if better, more appropriate instruments had been used (e.g., actual test scores, rather than verbal perceptions that students had achieved more). Likewise, cost/benefit analyses were rarely included and information needed to conduct such retrospectively were missing from most of these documents.

The majority of projects also provided little or no documentation of dissemination or project continuation. (Further probing in our on-site visits and surveys showed that more dissemination efforts are occurring, and more projects are continuing, than the official files indicate.) We believe that most project directors and most project evaluators underemphasize information in these areas. They must come to understand that such information, along with good documentation of project outcomes, is essential to justify continuing fiscal support of their efforts.

Another major finding is that the inadequacies in project file control and insufficient monitoring for district compliance in submitting required reports is the direct outcome of severe understaffing, as well as turnover, in the USOE personnel assigned to monitor this program. The USOE was able to assign less than half the number of persons we have seen assigned in most other state education agencies to direct and monitor programs of this size, scope, and complexity. Given understaffing and its resultant stress, turnover is no surprise. (We might add that some improvement across the last two years is evident because of particular dedication of the newly assigned staff in this program area, but the understaffing is still severe.)

Recommendations

For future projects, establish a file control system which will make it possible to see at a glance which items are present or missing in a project's file. Frequent monitoring of

project files should occur. Missing items that are past due should be vigorously pursued in an effort to complete files for accountability and possible future analysis.

Guidelines for project directors and evaluators should be established which spell out specifically what information USOE decision makers will need to assess the value of individual projects and of the overall program. Information about project impact, dissemination and continuance are essential minimums. In addition, standardized information concerning outcomes and line-item costs should be required in all project reports to enable secondary cost/benefit analysis of productivity projects to be conducted, should the USOE so desire. The guidelines for project evaluations should address the quality of the instruments which will be used to collect outcome data.

We also recommend that steps be taken either to provide more personnel resources to enable the productivity project program to be adequately managed and monitored or to establish mechanisms (some possibilities are outlined later) that could be used to assist with management and evaluation of this program.

2. OVERALL, WHAT IMPACT HAS THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM HAD ON OVERALL EDUCATIONAL BENEFIT, INCLUDING STUDENT OUTCOMES?

Major Findings

As already mentioned, much of the data desired to answer this question are missing from files, and existing data are not as solid as desirable. Only half of the projects had documentation adequate to determine the project's effect on outcomes. For this half, most of the measures used to collect outcome data depended on participants' perceptions. The majority of superintendents, project directors, teachers, parents, and students respond that their projects resulted in small to moderate increases in student achievement. They also respond that projects tend to improve student attitudes. The six on-site visits our team conducted confirmed these conclusions. In addition, our team created a composite variable (from project evaluation reports, including achievement and attitude, cost/benefits, and long term cost implications) to represent "overall educational benefit." This analysis also showed that most productivity projects have

resulted in a small to moderate overall educational benefit. Few projects were rated as causing large educational benefits, and fewer still as decreasing benefits of schooling.

In addition to achievement, attitude and overall educational benefits, changes in the efficiency of education services and the quality of instruction could be affected by the productivity project. Generally both the efficiency of educational services and the quality of instruction were reported to have improved because of the projects.

As noted by our on-site evaluation teams, and by our survey data, equity of educational opportunities was also positively effected by several of the projects. Several projects permitted specific courses to be offered to students who would not have otherwise had the opportunity to take them. Students in non-Wasatch Front areas particularly benefited through increased equity of educational opportunities.

Recommendations

The recommendation to improve the quality of the measures used to collect data on outcome measures is implied in the previous recommendations. However, it is reiterated here because of its importance to the argument that productivity projects actually increase productivity, as measured by the most valid and reliable measures.

Better means of assessing the efficiency of educational services and quality of instruction are needed. If these are important indicators of project success, and we suggest that they should be, better measures are essential.

Better measures are needed to document specific inequities in educational opportunities and how given productivity projects have remedied them. Some productivity projects may be justifiable solely on the basis of their effort in increasing the equity of educational opportunities.

The USOE may wish to consider imposing or encouraging common outcome measures for similar projects; such common measures will greatly facilitate across-project comparisons and summary.

3. OVERALL, WHAT IMPACT HAS THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM HAD ON COST OF EDUCATION IN UTAH?

Major Findings

Most project directors believe their projects will reduce the long-term costs of education in Utah. The USU research team's ratings were balanced, rating about as many projects as likely to increase costs as to decrease them.

When the USU research team ratings of the long-term cost implications of projects were cross tabulated with key outcome variables, analyses showed 23 projects (27% of the 85 projects with relatively complete files) which were rated as decreasing long-term costs and yielding small, moderate, or large overall educational benefits. These projects are clearly perceived (from their documents) as "productive." Another 42 projects (49%) were rated as either not effecting long-term costs or increasing them slightly, but yielding small, moderate, or large overall educational benefits. These projects are potentially "productive." The remaining 20 (24%) either presented too little data to judge or showed increased costs greater than the perceived benefits.

Principals, teachers, and parents tended to perceive productivity projects as more likely to increase or maintain long-term costs than to reduce them. Superintendents generally viewed high cost projects as negative.

Recommendations

Project directors and evaluators should make a greater effort to determine and substantiate their project's likely impact on long-term educational costs. Once determined and substantiated, the perceived (and eventually demonstrated) reductions or increases in costs should be communicated to interested parties.

The data showing that 23 (27%) of the 85 projects with the most complete files are rated by the USU research team as clearly productive, and an additional 42 (49%) of the projects as potentially productive, should be shared with decision makers as encouraging.

The findings that superintendents generally viewed expensive projects negatively and that principals, parents, and teachers viewed productivity projects as more likely to increase or not effect long-term educational costs than to reduce them, suggest that more effort is needed in communicating the potential of large scale productivity projects resulting in large long-term cost savings. As will be pointed out later, greater effort to disseminate successful projects which have been implemented at high costs in one location to other locations at lower costs will increase this potential dramatically.

4. OVERALL, WHAT IMPACT HAS THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM HAD ON COST/BENEFIT?

Major Findings

Cost/benefit estimates involve judgments by respondents of both the long-term cost implications and the overall educational benefits of a given project. Project directors' cost/benefit estimates were related to their perceptions of their project's impact on efficiency, student attitudes, and parent attitudes. Superintendents' estimates of cost/benefits were also related to their perceptions of efficiency. On those dimensions (not on cost savings, as such), both groups tended to see their projects as succeeding in this area.

The more standardized criteria used by the USU research team to look across projects may be the best estimates in considering the issue of cost/benefit ratios. One of the most important findings is that the USU research team rated 75% of the 85 projects for which relatively complete files existed as having a positive cost/benefit ratio (31% were rated as having a "small" positive ratio, 33% a "moderately" positive ratio, and 11% a "large" positive ratio). Ratings by interviewees and our on-site evaluators confirmed these findings for the 25 "better" projects selected for closer examination.

Recommendations

Clearly, the positive ratings by the USU research team of the cost/benefits of three-fourths of the 85 projects with relatively complete files is an important finding. We recommend that this become one of the most frequently mentioned outcomes of the

Utah Productivity Projects Studies Program (taking into account that it is based on estimates created from incomplete files for only half the productivity projects and corroborated by data collected on the "best" projects selected for interviews and site visits).

Future project directors and evaluators should be encouraged by the USOE to more carefully track costs, estimate the long-term impact on future costs of education, and document project outcomes more powerfully to facilitate estimates of cost-benefits, using standardized guidelines as suggested earlier.

The crucial impact of cost/benefit ratios for educational products, projects and practices on the future of education is a message which all educators need to understand. Their efforts should be undertaken with the expectation that success will be measured in part by positive cost/benefit ratios.

5. TO WHAT EXTENT HAS INFORMATION ABOUT PROJECTS IN THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM BEEN DISSEMINATED TO OTHER DISTRICTS?

Major Findings

While dissemination of information and products from successful productivity projects is an important means of lowering overall costs and justifying productivity funding, the official USOE files provided less evidence of dissemination than one would expect. Over half of the 85 projects for which relatively complete files existed provided no evidence or statements in their files which related to dissemination efforts. None of the most expensive projects (over $100,000) provided evidence of statewide dissemination of their official files, but all of the six projects receiving on-site visits (which included some over $100,000) provided evidence that they had disseminated at least some information about those projects. When the project directors of the 25 "best" projects were probed about dissemination, they provided a much more positive picture of dissemination efforts. Almost all (91%) provided some evidence of dissemination.

Ironically, the projects rated as having the largest impact on overall educational benefits were least likely to provide evidence, in their official files, of statewide dissemination.

Recommendations

Both project directors and evaluators must become aware of the importance of providing evidence of project dissemination as a major element in the justification for funding. The evidence provided must be more formal and complete than is presently the case.

USOE guidelines need to clearly establish the need for dissemination of information about successful and unsuccessful projects. For successful projects, products, practices and expertise all need to be disseminated to all districts sharing the needs addressed by the project.

USOE can further encourage linking via conferences, consortia and other means of disseminating and sharing the products, practices and expertise associated with successful projects.

6. TO WHAT EXTENT HAVE PROJECTS IN THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM BEEN CONTINUED BEYOND THEIR INITIAL FUNDING PERIOD?

Major Findings

Even though the continuation of successful projects beyond the period of state funding is a reasonable expectation, the USU research team's review of the 85 projects with the most complete official files showed most to include only weak evidence that the project continued. This "evidence" consisted mostly of (1) evaluators' recommendations that the project be continued or (2) implied continuance from indirect statements from project directors. Stronger evidence, such as plans or budgets for the future continuation, existed for very few projects.

As with dissemination, project directors, when queried in interviews, provided more encouraging information which indicated that all but two of the 25 "best" projects had been continued. Likewise, the six projects receiving on-site visits had all been continued

or were planning for continuation, so the actual facts concerning continuation are more positive than the reports in USOE files.

Recommendations

Successful projects should almost always be continued. Project directors, superintendents and evaluators should be aware that USOE expects successful projects to continue on district funding. Evidence of plans and budgets to continue successful projects should become part of the required final report for projects funded by USOE.

7. TO WHAT EXTENT HAVE THE PRODUCTIVITY PROJECTS ACHIEVED THE OBJECTIVES STATED IN THEIR PROPOSALS?

Major Findings

The USU research team rated the 85 projects for which relatively complete files existed in terms of how well the outcomes promised in their proposals matched the outcomes documented in their official files. The USU ratings showed 52 (or 61%) of the projects resulted in outcomes which "somewhat" matched those proposed. Twenty-one (or 25%) of the projects were rated as resulting in outcomes which were "well" correlated with those proposed. The remaining 14% were rated as not having achieved their objectives.

Districts with more projects funded over the eight years of the Utah Productivity Projects Studies Program (five districts each had six projects funded) tended to be more successful in matching obtained outcomes with the objectives in their proposals than was true of districts with only one or two projects.

The USU research team ratings of how well obtained outcomes matched proposed objectives correlated positively with ratings of cost/benefits and continuation, but not with dissemination, long-term cost implications, or project descriptive variables such as location, amount funded, type of grant, funded project category, or education level.

On-site evaluation teams reported that two of Utah's best six projects had completed their proposed objectives in their entirety; the other four had achieved from 50-90% of their objectives.

Recommendations

Since USOE funds projects in response to the expected outcomes identified as objectives in project proposals, the primary definition of "success" should be the degree of achievement of the proposed objectives. This definition should be agreed upon by all concerned and constitute the measuring rod against which the project will be judged.

Funding decisions should be made, at least in great part, on the basis of the potential value to the state of the achievement of the proposed objectives of the project. More care on the part of proposal writers will be needed to clearly specify important objectives to allow USOE to make good decisions.

8. WHAT IS THE QUALITY AND USEFULNESS OF THE EXISTING EVALUATION DOCUMENTS?

Major Findings

Apparently many of the Utah Productivity Projects Studies Program projects were not required to have either an internal evaluation report, an external evaluation report, or both. One or both of these reports were missing from many files where they should have existed. Lack of good evaluation information undermines the USOE's ability to determine if their funding resulted in increased productivity or other valuable innovations.

For those 85 projects with relatively complete files, the USU research team rated the evaluation documents (when available) for completeness and quality.

Completeness concerned the number of important issues the report addressed. Fifteen (or 18%) of the external reports were rated as "very complete," 21 (or 25%) of the reports were rated "somewhat complete," 14 (16%) were rated as "addressing only a few issues," 1 (1%) as "addressing no issues of importance," and the report was missing for 34 projects (40%). Similar, though slightly lower ratings were given for the 85 internal evaluation reports.

Quality ratings by the USU research team of the external evaluation report showed that 12 reports (or 14%) were rated "excellent," 15 (or 18%) rated "good," 18 (or 21%) "fair," 6 (or 7%) "poor," and 34 (40%) were missing. Again, quality ratings of internal evaluation reports were somewhat lower.

Thus most projects simply did not have very good evaluation information to aid project directors or USOE officials in making decisions concerning them.

A substantial number of the principals and teachers involved in projects for which evaluation reports existed were not aware of such reports. Most personnel involved with the relatively few projects which had an evaluation report, and personnel who were aware of the report, indicated that the evaluation was useful to them.

On-site visits confirmed that when reports were not considered useful, they were characterized by focusing on description of numbers of participants and activities, rather than key issues such as productivity, effectiveness, and project improvement. Also, less useful reports were often too subjective, involved small sample sizes, used informal measures and lacked relevance. Evaluation reports for Wasatch Front districts tended to be better than those for non-Wasatch Front districts.

Recommendations

The USU team recommends that an internal evaluation be required of all projects (using guidelines we suggest hereafter). High standards and stringent guidelines should be set for these evaluations. Adequate funding for evaluation will need to be provided. It is probable that more funding for evaluation will be needed for non-Wasatch Front projects to allow better evaluations to be done in these locations less convenient to university-based evaluators.

Internal evaluation guidelines should encourage the use of the best measures available and provide means for districts to obtain technical assistance where their expertise prevents them from using these measures. As pointed out earlier, better techniques need to be employed for assessing some of the issues critical to demonstrating success of productivity projects, such as equity, long-term cost implications, and cost/benefit ratios.

More dissemination of the evaluation reports is necessary, particularly of formative evaluations. Those involved in the project, such as building principals, teachers, students and parents should have access to reports for projects which directly affect them. Also, reports should be available to all decision makers who might influence expanded use of the information, products, practices and expertise developed in a given project.

9. WHAT ARE THE FACTORS CONTRIBUTING TO THE MOST SUCCESSFUL PROJECTS IN TERMS OF OVERALL EDUCATIONAL BENEFIT AND COST/BENEFIT?

Major Findings

Project directors of the 25 "best" projects reported the strongest factor in the success of the Utah Productivity Projects Studies Program was that the program provided new opportunities for them to innovate (52%). Other positive factors affecting the success of the program positively were increased involvement of staff and better instructional methods.

Project directors indicated that the following factors contributed to the success of their particular project: administrative support (71%), competence of the teachers involved (71%), support of teachers (62%), competence of staff (58%), and competence of the project director (54%). The competency and support of those involved clearly emerge as the two most important factors to success in the opinion of project directors of the 25 "best" projects.

A careful review of a set of nine projects identified in a computer analysis of the official USOE files as the "most successful" projects resulted in specific factors being identified for the individual projects. A general statement which characterizes these factors is that successful projects appear to be associated with a fortunate conjunction of a set of unusual factors: the right people with the right skills in the right place at the right time with adequate resources to pursue a project personally important to them in their professional activities.

Recommendations

Future descriptions of projects -- and evaluation reports -- should include careful and insightful efforts to identify factors which contribute to the success of the program. Generally, analyses for this question suffered from the lack of attention to identifying and chronicling such factors.

10. WHAT ARE THE FACTORS CONTRIBUTING TO THE LEAST SUCCESSFUL PROJECTS, IN TERMS OF OVERALL EDUCATIONAL BENEFIT AND COST/BENEFIT?

Major Findings

The USU research team found this question difficult to answer. Many projects had incomplete files; and hence, we could not determine their overall educational benefit or their cost/benefit in detail. Perhaps some of the least successful projects were among them.

Each computer analysis run to identify the least successful project either had to ignore the projects without adequate documentation, or the results included a large set of projects with little in common except incomplete files. When projects with incomplete files were ignored, new and different smaller sets of projects were nominated at least successful by the analyses, depending on which variables were included. The probable unfairness of ignoring half the projects, or arbitrarily deciding on one set of identifying variables to determine the set, and then labeling those which were identified as the "worst" projects led us to abandon this effort to answer this question.

The project directors of the 25 "best" projects for which relatively complete files existed listed some factors which they felt contributed to problems in their project. These included: "not enough time" (6 or 25%), "insufficient USOE assistance" (6 or 25%), "lack of administrative support" (3 or 12%) and "lack of teacher support" (3 or 12%). As with success, the support of those involved is a critical issue. The emergence of USOE assistance as a factor is important for the USOE to note, even though a minority view.

Recommendations

Future descriptions and evaluation reports for projects should include careful and insightful efforts to identify factors which contribute to the failure of projects.

11. WHAT MANAGEMENT PLAN AND PROCEDURES COULD BE USED BY USOE OFFICIALS TO OPTIMIZE THE BENEFITS AND IMPACT OF THE UTAH PRODUCTIVITY PROJECTS STUDIES PROGRAM?

(Answer combined with Question 12 below.)

12. WHAT EVALUATION STRATEGIES AND GUIDELINES COULD BE USED BY USOE TO ASSURE THAT FUTURE EVALUATIONS WILL PROVIDE VALID, RELIABLE, AND USEFUL INFORMATION CONCERNING (1) INDIVIDUAL PRODUCTIVITY PROJECTS TO PROJECT DIRECTORS, SCHOOL ADMINISTRATORS, AND USOE OFFICIALS, AND (2) INFORMATION ABOUT THE PROGRAM AS A WHOLE TO THE USOE AND TO UTAH'S LEGISLATORS AND BOARD OF EDUCATION?

Both of these questions have been answered, to a large extent, during answers to prior evaluation questions. Indeed, it has been impossible to address those questions without speaking directly to management and evaluation issues and recommending changes which would result in better overall management and evaluation of the Utah Productivity Project Studies Program. In addition to management of the Productivity Project Studies Program, per se, which has been implicitly addressed throughout this summary, the only remaining management issues that have not been addressed pertain specifically to management of the evaluation of individual productivity projects and of the overall evaluation of the Productivity Project Studies Program. Both of these issues are addressed here.

Answers to these multi-faceted questions lie less in data collected during this study than in the experience of our evaluation team in conducting numerous evaluations for state education agencies and assisting several states in setting up fully functioning

management evaluation systems that served to provide a steady supply of dependable information for both local and state decision making.

To provide a context for the system we will suggest, let us examine singly a dozen problems that plague most efforts to establish effective and cooperative evaluation efforts across local and state education levels. For each problem, we will provide a possible solution for that problem. Then we will show how those separate solutions can be fit into a system that can prevent or control the problems that otherwise will undermine even the most well-intentioned efforts to evaluate.

Problems in Evaluations and Proposed Solutions

1. ***A majority of state legislators, state governing board members, school district personnel, and even state education agency personnel are naive about both evaluation methodology and how to use evaluation effectively to improve local projects and statewide programs.***

Evaluation training should be provided to state education agency administrators and staff and, as feasible, to relevant members of the other constituencies listed above. Such training would provide basic familiarity with evaluation, its purposes and potentials, minimum essentials to conduct good evaluation studies, and strategies for how to use evaluation to improve educational programs.

2. ***In communicating with local school districts, state education agencies frequently fail to differentiate between formative and summative functions[1] of evaluation and whether they should be performed by internal or external evaluators.***

Both local and state education agencies should be queried to clarify their needs for formative and summative evaluation information in relation to specific programs and the deadlines by which each type of information is needed. The potential and pitfalls of

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[1]Formative evaluation refers to evaluation <u>during</u> a project for purposes of improving it, whereas summative evaluation refers to evaluation conducted at the <u>end</u> of a project to determine how well it succeeded in achieving its goals.

using internal and external evaluators in formative and summative evaluation should be clarified carefully.

3. ***State-issued guidelines and regulations for evaluation of funded projects are seldom adequate to produce good evaluation studies to provide the information the state desires.***

Explicit evaluation guidelines and regulations should be drafted outlining, as a minimum:

- State Office of Education and local school district needs for evaluation information to aid in decision making
- Non-informational needs for evaluation at local and state levels (e.g., similar to needs for auditing and other compliance monitoring)
- Plans for training those who will do the evaluations in use of these guidelines

4. ***School district practitioners who receive state categorical funding for specific projects typically do not understand evaluation and seldom know how to find or identify competent evaluation help to conduct formative evaluations. As a consequence, scarce evaluation resources are largely wasted on employing consultants with no evaluation expertise or credentials.***

This problem could be easily alleviated if the choice of the project evaluator were not left solely to the school district. A very workable solution is for the state to provide a pool (a list of names) of well-qualified evaluators from which districts might select to obtain help in conducting formative evaluation activities. Optimally, the state would underwrite the cost of such technical assistance so that evaluators selected to assist the district with evaluation would be paid from state funds, thus greatly increasing the likelihood of project directors obtaining such evaluation services from competent specialists.

5. ***Project directors are often allowed to select their own "third-party" evaluators to conduct summative evaluations of the effectiveness of their projects. The***

consequence is usually evaluation by non-evaluators (sometimes by "cronies"), and poor evaluation studies are the typical outcomes.

Again, requiring that local education agencies select their third-party evaluator from a state-maintained pool of qualified evaluators would greatly alleviate this problem. In addition, the anxiety frequently surrounding summative evaluation could be alleviated in part by a coordinated system of selective (sampled) evaluations of individual projects wherein all project directors know they could be evaluated at any time but they would not be evaluated so frequently as so interfere with project activities.

6. ***Evaluations resulting from the factors discussed above often lead to the perception that evaluation has failed, which in turn leads to reduction of evaluation funding. The result of such reduction is an information vacuum for program monitors and policy makers.***

If the solutions suggested in the previous five points are employed, high quality evaluations would typically result in greater appreciation of evaluation's potential and greater use of evaluators as partners in the educational enterprise.

7. ***Evaluation is frequently conducted as an "after-the-fact" activity, often used only when questions are raised about a particular program.***

This problem is easily eliminated if evaluation is incorporated from the outset of every project.

8. ***Frequently project directors learn that the state agency is not really serious about evaluation of the project, and that there are few if any consequences if evaluation requirements are not met. The result is usually relaxation of effort in accomplishing project goals or diversion of project funds for purposes different from those specified by the state agency.***

The obvious solution to this problem is two-fold. First, build non-trivial consequences into the system and then apply them consistently when project directors fail to comply

with or deliver on commitments and agreements reached as a condition of funding. Second, a system where project personnel do not know when an external evaluation of their project will be conducted (except for reasonable notification). This helps to avoid "let down" of project personnel in attempting to reach their project objectives.

9. ***Relaxation or reduction of evaluation typically results in an overall reduction in quality of funded project/programs.***

Earlier surveys conducted by the author of program failures in 11 state departments of education show that there is a very significant correlation between the quality of a funded program/project and the quality of evaluation of that effort. Systematic ongoing evaluation is necessary to enhance the quality of funded projects/programs and thus, to support sound educational reforms.

10. ***Evaluation funds are typically allocated on a proportionate basis, with <u>some</u> for everyone and no funds withheld for more intensive evaluation of very significant projects that have high state priority.***

It is always tempting in making decisions concerning special purpose programs to distribute monies by some funding formula that eases state problems sometimes associated with allocating funds on other bases. State agency staff are very familiar with claims of favoritism and inequity whenever categorical funds are allocated according to specified criteria. Those challenges notwithstanding, it is imperative that adequate resources be earmarked <u>within</u> each reform program, so adequate funds exist for routine evaluations of the majority of projects and more intensive evaluations of projects with special state significance or priority.

11. ***The practice of awarding all funds under any special purpose state program to districts and then "recovering" (i.e., taking back) a portion of the funding for evaluation results in program directors and staff perceiving evaluation as a competitor that robs funds from their project.***

A much wiser (and less contentious) procedure is to withhold a percentage of the total funds for any program prior to allocating the majority of funding to deserving programs. Then, the set-aside funds can be reallocated as additional funding for project evaluation or, better yet, used to provide requested evaluation services without any charge to the requesting school district. Under this arrangement, districts seldom see evaluation as a competitor but rather are pleased to use funds which are "not their own project funds" to obtain evaluation information that helps them improve their project.

12. ***State education program staff are frequently overextended and seldom have the time (and sometimes the expertise) to operate a fully functioning evaluation system.***

This problem can be solved by either (1) adding qualified evaluation personnel to the State Office staff to assist program directors, or (2) arrange for assistance by competent evaluators to work closely with State Office of Education to:

- establish and maintain an "evaluation technical assistance pool" on which local school districts can draw for help, and
- establish and operate a statewide system of evaluation that could serve any/all state education programs by a combination of selected on-site visits of the projects and more intensive evaluations of projects of special significance to educational reform.

A Proposed Structure and Strategy for a Utah State Evaluation System

The evaluation system suggested for use by the Utah State Office of Education to improve the evaluation of the Productivity Project Studies Program (and for other Utah reform programs as appropriate) draws on prior thinking of the project director (Worthen & White, 1987; Worthen & Sanders, 1987) and on experience in assisting 11 state offices of education in setting up similar systems. The suggestions made here are tailored, however, to fit Utah's context and circumstances.

1. The proposed system would provide for evaluation services as follows:

	Internal Project Evaluation	**External Third-Party Evaluation**
Formative Evaluation (to improve project)	Provided by school district project personnel (funded by district)	Provided by evaluation consultant, supplied by State Office upon district request (funded by State Office)
Summative Evaluation (to judge project effectiveness)	None (Bias would be a serious problem here)	Provided through State Office of Education system (sample of projects receive on-site evaluation; high priority projects receive special evaluation).

2. The proposed system would include as a minimum:

   a. "Familiarity" evaluation training of all school district project directors.

   b. Development of a state-sponsored pool of qualified evaluators to provide qualified formative evaluation assistance to school district projects, upon request. Operation of such a "technical assistance" (TA) evaluation pool would require:

      - identification of qualified evaluators (screening, maintaining)
      - training of qualified evaluators in the particular context of the state's funding program(s)
      - development of guidelines for service providers (TAs)
      - development of guidelines for service recipients (school district project personnel)
      - encouragement of schools to use TA.
      - serving as "clearing house" to fulfill requests for TA (brokerage function)
      - developing model materials to support TA

c. Annual on-site visits to samples of projects in each funded program. On-sites will serve to:

- provide summative evaluation of that year's project activities
- provide formative evaluation for next year, if the project is to be continued
- provide a cross-sectional (across projects) summative evaluation of the program for the State Office
- provide an accumulating data base about individual district's capability for making good use of state funding
- assure that individual projects will be attentive to program purposes and guidelines in their project activities

d. A complete on-site evaluation system, which will require:

- developing focused evaluation questions for each program/project
- developing on-site evaluation instruments
- selecting qualified on-site team leaders and members
- training qualified on-site team leaders and members in use of instruments, procedures and expected products
- careful pre-visit arrangements with project director
- developing protocols for conducting on-site visits and reporting results

Potential Benefits of the Proposed Evaluation System

Based on prior experience with similar systems, the results of implementing such an evaluation system will be:

- Improvement of each individual productivity project (or the project in whatever reform program is involved)
- Improvement of the overall productivity (or other reform) program
- Full acceptance and use of evaluation

OVERALL SUMMARY AND CONCLUSIONS

This study has yielded so much information that to summarize it risks severe oversimplification. Yet that risk must be taken, for failure to do so could lead to a greater danger that some major points might otherwise remain obscured by the more detailed information we have provided. Thus we exercise in this section the privilege of commenting on what we think are the most important findings and suggestions we might share with our client -- the state officers, staff and policy makers who will collectively chart the course of Utah's education in the future.

A Proposed Definition of Productivity

The State Board of Education's recent redefinition of "productivity" is a significant improvement over earlier definitions that had followed the legislative sentiment that Utah's schools could do "more for less" by improving the quality and/or quantity of education while simultaneously reducing costs. The current definition recognizes that improving the effectiveness and efficiency of educational programs is at the core of "productivity," and this definition is more in tune with national efforts to make schools more effective and efficient through innovation, restructuring and reform.

Yet, good as the current definition is, we urge that it be expanded to focus attention also on equity of educational opportunities as an important facet of educational "productivity" (as we shall discuss more later in this section). Specifically, we propose that the Board consider expanding the definition of "productivity" as follows:

> "Productivity" means improving the effectiveness and efficiency of educational programs and/or increasing the equality of access to educational opportunities.

Evaluation of Productivity Program Projects Has Been Inadequate

One of the strongest conclusions we have reached in doing this study is that the prior eight years of evaluation of productivity projects represents a failed opportunity to use evaluation to illuminate and guide decision making about either individual projects or

the overall statewide program. There are multiple reasons for this failure, but the following are perhaps the most serious:

- Only approximately half of the funded productivity projects provided copies of required internal and external evaluation reports to USOE.
- Although the guidelines for productivity projects made clear that project continuation, dissemination, and cost benefit were items of concern to the state, very few of the evaluations even attempted to address these issues.
- The great majority of evaluation studies failed to collect solid data on student achievement or other important outcomes, relying instead on secondary impressions of project participants to ascertain how well students had done.
- Only a minority of the required internal or external evaluation reports could be judged as methodologically adequate.
- The choice of third-party evaluators was left to the individual school district projects directors, many persons chosen to do the "evaluations" apparently have no background or expertise in conducting evaluation studies.
- Even when competent evaluators were selected, there were no guidelines provided to them by the state to underscore what specific areas the evaluation was expected to address.
- Project directors and some USOE staff appeared not to understand how different types of evaluation might serve their needs, thus creating considerable confusion about what they expected the evaluation studies to accomplish.
- Apparently there were no consequences for projects that failed to provide the required evaluation reports.

It should be noted that there were several evaluation studies funded under the productivity program that were well conceived and well conducted, and information from those studies have been very helpful in this present study. Unfortunately, however, the majority of evaluation opportunities were missed either because no evaluation was conducted or the activities that passed as evaluation were inadequate.

One could conclude from this analysis that the state has wasted a great deal of its resources on evaluation. That would be inaccurate. No money spent on evaluation has

been wasted. But a great deal of money has been wasted because it has been spent on activities that masqueraded as evaluation but that bear only a remote resemblance to genuine evaluations of educational programs. Perhaps the greatest tragedy would be to presume that what has occurred during the past eight years is evaluation and, therefore, that evaluation is not capable of providing help to educational agencies engaged in program improvement efforts. We would urge that evaluation successes be reviewed -- places where solid evaluation systems continue to provide important information to managers and policy makers -- before drawing any such inferences.

If the evaluation of Utah's Productivity Project Studies Program is any indication, then the USOE and the Board of Education are in serious need of establishing an evaluation system, structure, and capability that would better serve the information needs of those who will chart the future course of education in our state.

Such an evaluation capability would include, as a minimum, the following components or characteristics:

- useful internal evaluation of each reform project;
- on-site visits to provide external evaluations of selected samples of projects each year;
- comparability of data collected across projects to provide better information at both local and state levels concerning educational benefits, cost benefits, and the like;
- focused evaluations of significant, high priority projects (especially in preparation for dissemination);
- evaluation training and technical assistance to districts to enable them to conduct adequate evaluations; and
- effective monitoring of project evaluation through either additional USOE staff, contractual or internship arrangements, or other means.

Productivity Program Management and Assistance Must Be Strengthened

The inadequacies in evaluation just discussed are directly attributable to several factors, such as district noncompliance with state evaluation requirements, inability of many

districts to do adequate internal evaluation, or inadequacies in the way the Productivity Project Studies Program has been managed and monitored during some periods of its history. If significant special purpose programs, such as Utah's productivity effort, are to fulfill their potential, these problems must be overcome through strengthening USOE program assistance and monitoring. Such strengthening will require greater attention to two separate but interrelated management functions: (1) compliance monitoring and (2) technical assistance and training.

Compliance monitoring. Any funding program must have some monitoring element to make sure districts comply with state expectations and requirements and that the money is expended in ways that are consistent with the funding authorization. Expectations need to be laid out clearly in advance and there needs to be real consequences if required activities do not occur and required reports are not forthcoming. Without some form of monitoring, the USOE cannot assure the State Board or legislature that the program is "on track" and accomplishing its intended purposes.

Technical assistance and training. Conversely, many school districts which received funding for productivity projects are ill equipped to carry out all the activities necessary to succeed, unless they receive external help to do so. USOE personnel responsible for special programs stand in the front ranks of those who might reasonably be expected to provide such assistance, either through direct training and assistance or through identifying specific individuals who possess particular expertise to assist a particular district with a particular problem.

Understaffing in USOE. Unfortunately, the staff resources allocated to the productivity program (and possibly other USOE special purpose programs) are seriously inadequate to enable both of these management functions to be carried out satisfactorily. The history of the productivity program reveals that it has suffered from inadequate allocation of USOE personnel resources. Seriously understaffed throughout its history, staff members assigned to manage this program have been put in the untenable "teeter totter" position where increasing their attention to monitoring compliance with program rules and regulations left them no time to assist districts in

carrying out required activities in a quality fashion, and as quickly as they attempted to serve districts through helpful technical assistance activities, monitoring slipped and districts soon discovered they could ignore program requirements with impunity.

Because of new (replacement) staff assigned to manage the productivity projects during the last two years, considerable efforts are being made to improve both compliance monitoring and to provide technical assistance, and gains are being made. But it is unlikely that these can be maintained or expanded to the point where both monitoring and technical assistance can be provided adequately unless additional resources are committed.

The USOE executives and the State Board need to consider how it might strengthen staff resources assigned to manage the productivity program. If there are irreconcilable impediments to increasing staff resources, then other means to provide technical assistance and/or monitor compliance must be found if this (and other) USOE special purpose programs are to achieve their desired ends.

Impact of Productivity Projects on Education in Utah

Our conclusions rest partly on data from prior evaluation studies we have already labelled as inadequate, partly on our own collection of school practitioners' perceptions about the productivity projects, and partly on our own original data collection. Therefore, we cannot state unequivocable conclusions; they should be tempered with some caution. But there is a consistency in the data on some points that we believe makes the following conclusions credible.

1. **Most productivity projects have resulted in small to moderate overall educational benefits** (increases in achievement and attitude, increases in efficiency or effectiveness, or improved long-term potential for education). Although some projects were found to produce large gains in achievement or attitude, and a few proved to decrease educational benefits for their participants, the efficiency of educational services and the quality of instruction appeared to have improved somewhat because of the existence of productivity funding.

2. **The Productivity Projects Studies Program has had a beneficial impact on cost and cost/benefit ratios in Utah**. Although again admittedly we rest our case on relatively soft data here, our best estimate from the massive amount of information we have examined is that, where adequate cost data were provided, approximately 75% of the projects resulted in at least moderate positive cost/benefit ratios and were judged as "productive" or "potentially productive" in decreasing long-term costs, while still yielding some increased educational benefits. We reiterate that these data are largely based on perceptions of participants, but they were corroborated by data we collected directly in visiting samples of projects.

3. **Dissemination of productivity projects is occurring, but should be better coordinated**. Dissemination of information about successful productivity projects should be increased and better coordinated. Although data we collected suggested that a large majority of productivity projects disseminate information about their activities, those efforts could not be corroborated by project files or by asking other districts if they were aware of projects about which they had supposedly received information. Moreover, the projects that appeared to have the highest potential for improving educational outcomes were least likely to have engaged in broad-scaled dissemination. The WANDAH project was one notable exception, having had widespread dissemination and adoption from its original project in the Logan City School District. These dissemination successes are the exception, however, not the rule, and USOE efforts should be made to assure that information about a successful project is disseminated, so that ideas developed in one district can be adopted (at less cost) in another, thus furthering the intent of productivity funding. Responsibility for dissemination should not be left solely to the district but should be shared by the state, particularly of practices/projects that have proven effective. Perhaps national examples such as "Project LINC" could be used as models for such efforts.

In addition, the USOE and State Board may also wish to consider cyclical emphasis in productivity project funding. For example, after several years of funding developmental and innovative projects, the state may be less in need or more new ideas than of funds to replicate ideas proven to be productive in other districts. Such replication efforts are, in turn, dependent upon good dissemination systems.

4. **Whether or not productivity projects are being continued beyond their initial funding period is uncertain**. Data from this study are inconclusive about continuation of productivity projects once state funding is withdrawn. The project files contain little or no evidence that projects were (or would be) continued, but interviews and site visits we conducted showed that a majority of successful projects were continuing, although sometimes in scaled-down terms once state funds were withdrawn.

5. **Innovative productivity projects have resulted in improved instruction and learning**. Although again the data on which this conclusion rests are somewhat impressionistic, the evidence suggests that many productivity projects have enhanced the teaching-learning process. One pervasive theme that emerged from interviews, questionnaires, and site visits is that funds for productivity projects have enabled schools to innovate in ways that have improved instructional quality significantly, whether or not they have lowered costs. Another common theme is that student motivation has been increased because their role has changed from passive recipient to active learner under innovations introduced through many productivity projects. We believe these perceptions merit attention and (in the interim until better evaluation data can be collected through procedures suggested earlier) warrant continuation of productivity funding as an essential opportunity for schools to experiment with instructional techniques that can lead to more effective and efficient learning. Without such funding for innovative programs, it may be difficult to maintain the momentum that appears to be in many Utah classrooms as a result of productivity funding.

The Productivity Program Has Spawned Other Innovative Programs

One way to judge the success of any program is whether or not it "spins off" other useful practices or programs. If that criterion is applied to the Utah Productivity Project Studies Program, then it should be deemed successful. Because of mutual interest of the schools, USOE, and the State Board of Education, the technology projects and year-round school projects have been separated in recent years from the productivity category and are now administered separately within the USOE. In some senses, the outcome-based education program also was rooted, at least partially, in early productivity program efforts. In this sense, the Productivity Project Studies Program has spun off

two, if not three, additional legislatively supported educational programs which are viewed as enhancing the productivity of Utah's educational systems.

Types of Productivity Projects That Have Proven Most Successful

Both State Board members and USOE officials have asked which types of productivity projects are the "best," so future efforts can be aimed at supporting more projects of that type. As important as that question is, there is risk that answering it could result in serious oversimplification, if the following caveats were overlooked. First, because of limitations discussed earlier, the data collected during this study cannot support strong, unequivocal comparisons and conclusions. Second, judging the quality of prior projects (necessary to determine which type of project is "best") is dependent not only on how good the project is, but also on how well the project outcomes were documented in evaluation reports, etc. Thus, it was quite easy to identify a number of "good" projects where positive outcomes were documented. But the possibility exists that other projects (or types of projects) yielded outcomes that were equally good, but that were poorly documented, thus resulting in some very good projects or types of projects being overlooked.

With that qualification, we can say that the following types of grants contained generally good documentation that evidenced project success:

- almost all WANDAH projects;
- a strong majority of year-round education projects;
- a majority of the technology projects; and
- a slight majority of accelerated pace projects.

The Productivity Program Has Increased the Equality of Educational Opportunities

One of the most surprising and impressive findings of this study is the extent to which several of Utah's productivity projects have led to increased opportunities for many students to take courses and receive training in specialized areas that would otherwise not have been possible. Several productivity projects had expended their funds delivering instruction via technology to students in remote areas who would otherwise have had no opportunity for such an experience. For example, high school students in

small rural schools are able to take advanced physics or chemistry courses as part of a "satellite class," whereas such opportunities would not otherwise be provided to the one or two advanced students in each of those rural schools. Even within larger metropolitan districts, schools have found ways to link together to deliver more efficiently instruction in special topical areas, thus assembling by technology advanced students in several district schools to receive special advanced instruction.

In larger districts, this means that many students can be provided with opportunities for increased learning that would otherwise not have been affordable. In rural districts, this means that innovative use of productivity funds has reduced the preexisting problem of discrimination in educational opportunities afforded to individual students or small groups of students in remote settings. Students in non-Wasatch Front areas particularly have benefitted through increased equity of educational opportunities that occurred through several productivity projects.

Although effectiveness and efficiency are key elements in any educational system, and reduction in costs a continual concern, it must be stressed that Utah has an obligation to provide equal educational opportunities to all of its youngsters, an obligation that has not heretofore been well fulfilled. Several innovative productivity projects funded have gone far to resolving this problem. Were this to be the only outcome of this funding authorization, it may still merit continued support on this basis alone (although as stated above, a number of other positive outcomes can be identified as well). Even here, however, the definition of productivity need not be strained if equity is included. When access to educational opportunities are increased, education is thus made more equitable, and educational systems are also more productive. Put most simply, if one looks at this phenomenon through the "cost/benefit" lens, on the benefit side of the equation, the fact that more classes or content is offered to students than before must be taken into consideration. Even if there are not more students or fewer teachers involved.

The Productivity Program Cannot Be Managed Effectively if Political Forces Are Allowed to Undermine USOE Decisions

It is clear, from many sources of evidence examined during this evaluation, that at least some Utah school districts feel they can, with impunity, "thumb their nose" at the State Office of Education. For example, school districts that have received significant funding for large productivity projects have simply made clear that they feel under no obligation to comply with USOE requests for school district cooperation in requesting that project personnel, patrons, or students respond to questionnaires or other information collection techniques. Failure of school districts to comply with USOE requirements concerning productivity projects appears to have little or no consequences.

It appears that USOE may be caught in a dilemma facing many state education agencies which find that they are not provided with sufficient backing from their state governing board or legislative bodies to prevent the political clout of well-placed districts to interfere with appropriate compliance processes. In most state education agencies, the repercussions would be non-trivial if the state decided to "pull the plug" on funding of a school district which was "well wired" politically. Perhaps Utah is no exception, since it does not appear that districts are expected to "toe the line" on fulfilling even minimum expectations that are well spelled out and are reasonable.

It appears imperative for USOE to devise a means of holding districts accountable for project promises, expenditure of funds, required reports, and the like. In the absence of such accountability, districts are free to promise the moon and deliver only one page reports as ethereal as a moonbeam.

The Productivity Program Will be Seriously Diluted If Limited Resources Are Spread Across Too Many Districts

The overall productivity project effort may be hampered by efforts to do too much with too little, by spreading available funds across too many districts, thus impeding the effectiveness of many projects because of limited funding.

It is always a difficult choice to make between spreading the wealth among as many districts as possible and funneling relatively more of the resources into fewer districts,

with the intent of doing fewer things better. If the USOE managers of UPPSP have erred in this area, it would appear they may have erred on the side of being too egalitarian. Significant projects take significant state investments, and those investments are unlikely to occur if scarce resources are spread too thinly to fund simultaneous projects in a large number of school districts.

Small dribbles of money are seldom sufficient to create significant innovations in schooling (although there are some delightful exceptions that would preserve faith in school districts that request only small funds for particularly well-focused ideas). Consequently, when funds are spread thinly, the result is often that school districts will use them to patch broken windows and buy more chalk, rather than developing promising innovative programs.

Current proposals for formula funding for the productivity program and other special purpose USOE programs would greatly exacerbate the problem described here. Indeed, it would virtually assure that money would be spread too thin to yield significant outcomes and, while it may "keep the natives happy," it is unlikely to have the desired outcomes that will come only from well-focused and well-funded projects that can yield demonstrable benefits and then be disseminated to other districts throughout the state, as was the case with the WANDAH projects.

A Final Word

Although we have identified numerous problems with the management and evaluation of Utah's Productivity Projects Studies Program during its eight-year history, it has nonetheless yielded positive outcomes. We end this evaluation with substantial respect for Utah's educators who appear to have frequently used productivity project funding in ways that have genuinely been "productive." Sometimes the projects have resulted in increased educational benefits, sometimes in decreased costs, sometimes in both, and sometimes in neither. Sometimes costs have increased, but benefits have increased even faster. And sometimes surprising "side effects" such as increased equity in access to education have resulted.

The flawed prior evaluations do not permit us to say with certainty what proportion of the productivity funding may have been wasted or misspent. Certainly better evaluation is needed to answer those questions in the future. But in the meantime, and until there is conclusive evidence to the contrary, we believe the results of this study warrant continuation of the Productivity Projects Studies Program as an important part of Utah's effort to enhance the quality and efficiency of education for its children.

References

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